

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC HEALTH

WALTER M. DICKIE, M. D., DIRECTOR

Weekly



Bulletin

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GUY P. JONES
EDITOR

**Epidemic Meningitis
Is Unduly Prevalent.**

Epidemic meningitis is unduly prevalent in California at the present time. Fifty-four cases of the disease occurred during December and thirty cases have been reported during the first two weeks of January. This disease has shown an increased prevalence within the state during the past three years. The numbers of cases reported, each year, during the past five years are as follows:

1924	109 cases
1925	110 cases
1926	208 cases
1927	260 cases
1928	255 cases

Cases of epidemic meningitis are rather evenly distributed over the state in proportion to population, although comparatively few cases have occurred in the rural sections of the state. Similar increases in the prevalence of this disease have been noted in other parts of the country, although the increase has been more marked in some places than in others. Nine hundred cases of epidemic meningitis were reported in New York City from January 1 to November 1, 1928. Other large cities in the eastern states have also reported an increased prevalence in the disease.

Epidemic meningitis is one of the most severe and damaging of the communi-

cable diseases. It is caused by the *meningococcus*. This organism is found in the nasopharyngeal secretions and many carriers are found when the disease is epidemic. It dies quickly outside of the human body. The disease may be spread by cases, by convalescent carriers and by healthy carriers. It sometimes happens that healthy carriers, after remaining in such state for some time, finally fall victims to the disease themselves. Eighty per cent of all cases occur in individuals who are twenty-five years of age and under. Children and infants suffer from it, but it seems to be more prevalent among young men who are subjected to conditions of over crowding. During the war it was extremely prevalent among young soldiers in barracks. The disease seems to have the faculty of attacking the most vigorous and robust. Since the infection attacks the brain and spinal cord, the symptoms of the disease are most pronounced. If the attack is sudden, the development of the acute symptoms is tragic in severity and swiftness. The disease is about seventy per cent fatal and sometimes the fatality rate is even higher. There may be headache, vertigo, or extreme irritability during the early stages. Children who show signs of illness with extreme nervousness when meningitis is epidemic should receive medical attention as soon as possible. Definite diagnosis may be secured by means of a bacteriological examination of the spinal fluid. The *meningococci* are almost cer-

tain to be found in the spinal fluid if the disease is epidemic meningitis. One attack does not confer immunity. Death generally occurs in from two to five days, and sometimes sooner. If recovery occurs it generally begins after the third day and continues slowly over a long period of time. There is likely to be permanent damage to the central nervous system.

A serum for the treatment of epidemic meningitis was developed in 1905. If this treatment is begun early, it is effective in the control of the disease. It must be given, however, within a short time after the onset. The mortality rate has been reduced to as low as 18 per cent in cases in which serum was used.

It is said that the *meningococcus* ceases to exist when cast into an atmosphere with a temperature of 71.6 Fahrenheit. When the disease is epidemic the temperature of rooms where men congregate should not be permitted to reach this point. The usual measures of quarantine and isolation of contacts are used for the control of the disease. The State Department of Public Health regulations governing epidemic meningitis were published in last week's Bulletin.

In commenting upon epidemic meningitis, Victor Vaughn says: "When man becomes sufficiently well trained in personal hygiene that he is able to avoid receiving all consignments of bacterial flora from the upper air passages of his neighbors, the last of the meningococci will die. * * * Epidemic meningitis is reported from marsh and mountain; from seacoast and inland; from cold and hot countries; in times of flood and in times of drought; at the level of the sea and at high altitudes; among the poor and among the rich. The *meningococcus* seems to be satisfied to take up its residence in any individual of the Genus homo and it is always seeking to reach the highly protected nervous system of its host."

Epidemic Meningitis—California

Month	1924	1925	1926	1927	1928
January	10	7	29	19	27
February	12	4	41	26	30
March	7	8	17	23	20
April	13	9	15	37	17
May	5	13	15	23	19
June	10	6	17	27	17
July	9	6	15	21	12
August	8	10	10	16	14
September	5	12	13	14	12
October	13	5	12	21	14
November	9	5	9	20	19
December	8	25	15	13	54
	109	110	208	260	255

Health and good estate of body are above all gold.—Ecclesiasticus.

Report Many Cases of Epidemic Meningitis.

Since 1926 epidemic meningitis has been more widely prevalent in California, and in other states as well, than during preceding years. During the past few months, in California, it has been especially prevalent, no less than 54 cases of the disease having been reported during December out of a total of 255 cases reported during the whole year of 1928. Thirty cases of the disease were reported during the first two weeks of January. Epidemic meningitis belongs to the classification of respiratory infections. The organism, *meningococcus*, may be found in the noses and throats of contact carriers when the disease is epidemic. Diagnosis may be established by means of a bacteriological examination of the spinal fluid. The invasion of the central nervous system by the organism makes the disease particularly severe, producing symptoms that are particularly harrowing. The mortality rate is about 70 per cent. This may be reduced, however, to about 20 per cent if the serum treatment is begun early. Epidemic meningitis seems to attack the most robust of young adults, although it may occur in any age period from infancy to twenty-five years.

EPIDEMIC MENINGITIS

Year	Cases	Deaths
1913	67	49
1914	70	40
1915	46	22
1916	64	15
1917	133	31
1918	226	325
1919	103	77
1920	186	55
1921	171	63
1922	117	41
1923	120	47
1924	109	40
1925	110	38
1926	208	102
1927	260	101
1928	255	---

Sacramento Has New Health Officer.

Dr. W. W. Cress, who has been city health officer of Sacramento for several years, has relinquished the office to Dr. J. Howard Hall. Dr. Cress has made an excellent record as health officer of the capital of the state and the best wishes of the State Department of Public Health are extended to him.

The errors of parents the gods turn to the undoing of their children.—Euripedes.

Communicable Diseases In 1928 Show Increase.

A total of 144,666 cases of communicable diseases were reported to the State Department of Public Health during 1928. This number is slightly higher than that for 1927, when 141,886 such cases were reported. The epidemic of influenza in the fall of 1928 contributed more than 49,000 cases to the grand total of all communicable diseases reported during the year, and the widespread epidemic of measles in 1927 contributed almost 59,000 cases out of the grand total of 141,886 cases of communicable disease reported during that year. Next in prevalence to influenza during 1928 was chickenpox, of which 17,790 cases were reported. About the same number of cases of this disease were reported during the preceding year. Nearly 11,000 cases of tuberculosis were reported; 10,000 cases of mumps; and more than 9000 cases of whooping cough. Scarlet fever contributed 7500 cases and the venereal diseases were reported in numbers of 13,000. Diphtheria fell from 6412 cases reported in 1927 to 4741 cases reported in 1928. Typhoid fever remained almost stationary, as there were 683 cases in 1927 and 680 cases in 1928. The most conspicuous reduction in numbers of cases reported was in measles, as there were but 4000 cases reported in 1928, as against almost 59,000 cases reported in 1927. This reduction is not for particular significance however, because of the fact that the disease follows a natural biological law, becoming widely prevalent about every four years when a new crop of nonimmune children becomes infected. The disease is so highly contagious that it is controlled with great difficulty. Following are the numbers of cases of communicable diseases reported in California during the years 1927 and 1928:

COMMUNICABLE DISEASES REPORTED DURING 1928 AND 1927

	1928	1927
Chickenpox	17,790	17,549
Diphtheria	4,741	6,412
German measles	9,005	2,770
Influenza	49,037	1,645
Malaria	7,658	58
Measles	4,000	58,963
Mumps	10,277	7,683
Pneumonia (lobar)	3,776	3,209
Scarlet fever	7,538	8,543
Smallpox	1,176	984
Typhoid fever	680	683
Whooping cough	9,673	7,500
Paratyphoid fever	35	38
Meningitis (epidemic)	257	260
Dysentery (amoebic)	49	43
Dysentery (bacillary)	86	219
Erysipelas	711	678

	1928	1927
Gonorrhoea	5,580	5,346
Leprosy	19	23
Ophthalmia neonatorum	17	13
Pellagra	59	45
Poliomyelitis	296	1,298
Syphilis	7,534	6,573
Tetanus	79	58
Trachoma	291	440
Tuberculosis (pulmonary)	10,273	9,595
Tuberculosis (other forms)	541	554
Encephalitis (epidemic)	67	87
Jaundice (epidemic)	10	34
Rabies (animal)	710	376
Rabies (human)	3	1
Botulism	5	4
Food poisoning	160	136
Anthrax	6	1
Hookworm	12	8
Undulant fever	11	14
Plague	3	1
Rocky Mt. spotted fever	8	2
Trichinosis	22	36
Typhus fever	2	---
Yaws	1	---
Actinomycosis	9	2
Coccidioid granuloma	25	---
Tularemia	16	2
Total	144,666	141,886

New Health Officer For Monterey County.

Dr. Wiley Reeves of Salinas has been appointed health officer of Monterey County to succeed Dr. R. C. Main, who is now health officer of Santa Barbara County. Dr. Reeves is a resident of Monterey County.

"Life gives nothing to men without great labour."—Horace.

MORBIDITY.*

Diphtheria.

61 cases of diphtheria have been reported, as follows: Berkeley 2, Oakland 2, Oroville 1, Fresno 1, Humboldt County 1, Brawley 2, Los Angeles County 4, El Segundo 2, Glendale 1, Huntington Park 1, Long Beach 4, Los Angeles 9, Whittier 2, South Gate 1, Madera County 1, Sacramento 1, San Juan Bautista 1, San Bernardino 1, San Diego 5, San Francisco 12, Redwood City 1, Santa Clara County 2, San Jose 2, Yuba City 1, Tulare County 1.

Measles.

26 cases of measles have been reported, as follows: Fresno County 1, Fresno 2, Los Angeles County 2, Los Angeles 3, Marin County 1, King City 1, Sacramento 1, San Bernardino 1, San Diego County 1, Lodi 1, Santa Barbara County 6, Lompoc 4, Santa Barbara 1, San Jose 1.

Scarlet Fever.

264 cases of scarlet fever have been reported, as follows: Alameda 3, Berkeley 1, Oakland 13, Jackson 1, Butte County 2, Colusa County 1, Fresno 2, Kern County 6, Kings County 1, Los Angeles County 11, Alhambra 2, Burbank 1, Compton 1, El Segundo 1, Long Beach 1, Los Angeles 59, Pasadena 1, Pomona 1, San Fernando 1, Whittier 2, South Gate 1, Madera County 11, Marin County 1, Monterey 2, Nevada City 2, Orange County 1, Santa Ana 1,

*From reports received on January 14th and 15th for week ending January 12th.

Riverside County 4, Riverside 4, Sacramento County 2, Sacramento 16, San Benito County 1, Hollister 1, Chino 1, San Bernardino 1, San Diego County 1, San Diego 16, San Francisco 30, San Joaquin County 4, Lodi 3, Stockton 4, San Luis Obispo County 1, Burlingame 1, San Mateo 1, South San Francisco 1, Santa Barbara County 2, Santa Barbara 1, Santa Clara County 4, Gilroy 8, San Jose 6, Solano County 1, Sonoma County 3, Santa Rosa 1, Modesto 1, Yuba City 1, Tulare County 1, Porterville 1, Sonora 6, Marysville 4, Merced County 1, Modoc County 1.

Smallpox.

37 cases of smallpox have been reported, as follows: Alameda County 7, Berkeley 2, Oakland 5, Butte County 3, Gridley 2, Fresno County 2, Eureka 3, Lake County 1, Colton 6, San Bernardino 2, Tulare County 1, Visalia 3.

Typhoid Fever.

Orange County reported one case of typhoid fever.

Whooping Cough.

207 cases of whooping cough have been reported, as follows: Alameda 3, Berkeley 2, Oakland 15, Piedmont 4, Butte County 1, Bakersfield 1, Los Angeles County 33, Glendale 5, Huntington Park 4, Long Beach 3, Los Ange-

les 22, Pasadena 4, Santa Monica 1, Monterey County 4, King City 6, Salinas 4, Orange County 1, Anaheim 2, Brea 6, Santa Ana 1, Riverside County 4, San Jacinto 3, Sacramento 8, San Bernardino 3, San Diego County 2, San Diego 12, San Francisco 6, Santa Barbara County 13, Santa Barbara 5, Santa Clara County 16, San Jose 12, Santa Rosa 1.

Meningitis (Epidemic).

19 cases of epidemic meningitis have been reported, as follows: Alameda County 1, Berkeley 1, Oakland 1, Pittsburg 2, Los Angeles County 1, Los Angeles 3, Merced County 1, Sacramento 2, San Francisco 6, San Luis Obispo 1.

Poliomyelitis.

Two cases of poliomyelitis have been reported, as follows: Piedmont 1, Kern County 1.

Encephalitis (Epidemic).

Two cases of epidemic encephalitis have been reported, as follows: Glendale 1, Los Angeles 1.

Food Poisoning.

San Mateo County reported one case of food poisoning.

Coccidioidal Granuloma.

Los Angeles reported no case of coccidioidal granuloma.

COMMUNICABLE DISEASE REPORTS

Disease	1928-1929				1927-1928			
	Week ending			Reports for week ending Jan. 12 received by Jan. 15	Week ending			Reports for week ending Jan. 14 received by Jan. 17
	Dec. 22	Dec. 29	Jan. 5		Dec. 24	Dec. 31	Jan. 7	
Anthrax.....	0	0	0	0	0	0	0	0
Botulism.....	0	0	0	0	0	0	1	0
Coccidioidal Granuloma.....	4	0	1	1	0	0	0	0
Chickenpox.....	125	110	185	321	243	203	438	560
Diphtheria.....	92	57	54	61	171	146	140	129
Dysentery (Bacillary).....	1	0	1	0	1	2	4	5
Encephalitis (Epidemic).....	1	0	2	2	0	5	1	2
Food poisoning.....	4	0	0	1	6	1	3	2
German Measles.....	1	7	10	13	106	40	196	274
Gonococcus Infection.....	81	70	99	125	90	68	127	78
Influenza.....	3 141	1,561	1,364	976	20	27	35	34
Jaundice (Epidemic).....	0	0	0	0	1	0	0	0
Leprosy.....	1	0	0	0	0	0	0	0
Malaria.....	0	2	0	5	0	1	0	0
Measles.....	19	19	22	26	35	42	83	96
Meningitis (Epidemic).....	14	15	11	19	3	2	4	9
Mumps.....	139	98	159	253	69	65	96	146
Paratyphoid Fever.....	0	0	1	0	1	1	1	0
Pneumonia (Lobar).....	131	88	95	81	48	187	79	74
Poliomyelitis.....	3	1	1	2	12	16	11	8
Rabies (Animal).....	19	17	13	11	5	19	5	10
Rocky Mt. Spotted Fever.....	0	0	0	0	0	0	0	0
Scarlet Fever.....	185	150	197	264	192	172	166	206
Smallpox.....	18	19	13	37	14	20	20	22
Syphilis.....	113	89	128	188	85	109	123	129
Tetanus.....	0	0	1	1	1	4	0	1
Trachoma.....	0	1	0	1	1	1	2	4
Trichinosis.....	0	0	0	0	2	0	0	0
Tuberculosis.....	216	145	186	222	138	156	132	198
Typhoid Fever.....	5	8	5	1	13	9	6	13
Typhus Fever.....	0	0	0	0	0	0	0	0
Whooping Cough.....	75	71	155	201	56	60	104	131
Totals.....	4,388	2,528	2,703	2,812	1,313	1,356	1,777	2,131

CALIFORNIA STATE PRINTING OFFICE